

What is claimed is:

1. A seal structure for sealing the inlet/exit gate passageway of an elongated object  
(1) exiting a process cavity (A, B) or entering such a cavity, the seal structure  
5 comprising sheet-metal structures, which essentially delineate said passageway and  
are removably mounted on the frame structure (3) of said process cavity, and a  
sweeping seal element (13) held in place by said sheet-metal structures and enclosing  
said passageway so as to provide a seal against the outer surface of the object  
traveling through the passageway, **characterized** in that said sheet-metal structures  
10 comprise at least two sheet-metal elements (14, 15, 15x) that have a shape taperingly  
departing from the frame structure (3) of said process cavity so as to be inclined in  
the nominal travel direction of the object (1) and are kept compressed mutually  
against each other so as to clamp a seal element (13, 13x) therebetween.
- 15 2. The seal structure of claim 1, **characterized** in that the angle of inclination ( $\alpha$ ) of  
the sheet-metal elements in regard to a plane perpendicular to the longitudinal axis of  
the object (1) being processed is  $15^\circ$  to  $20^\circ$ .
- 20 3. The seal structure of claim 1, **characterized** in that said sheet-metal elements  
have a flaringly swaged outer rim portion or the like integral part in a close vicinity  
of their outer periphery.
- 25 4. The seal structure of claim 3, **characterized** in that said flaringly swaged outer  
rim portion of said sheet-metal elements has a flaring angle ( $\beta$ ) of about  $15^\circ$  in regard  
to the longitudinal axis of the object (1) being processed.
- 30 5. The seal structure of any one of foregoing claims, **characterized** in that said  
sheet-metal elements (14, 15, 15x) are pieces of rotation of a substantially equal  
shape.
6. The seal structure of claim 5, **characterized** in that said sheet-metal elements (14,  
15, 15x) form a conically stacked structure.

7. The seal structure of claim 5, characterized in that said seal structure includes elements having curved portions.
- 5 8. The seal structure of any one of foregoing claims, characterized in that said mutual compression of the sheet-metal structures (14, 15, 15x) against each other is accomplished by means of the mounting (16) of the sheet-metal elements to the frame structure (3) of the process cavity.
- 10 9. The seal structure of any one of foregoing claims, characterized in that said mutual compression of the sheet-metal structures (14, 15, 15x) against each other is accomplished by means of separate clamp elements (18, 18x).
- 15 10. The seal structure of any one of foregoing claims, characterized in that said sheet-metal elements (15, 15x) have guide projections (19) directed toward said seal elements (13, 13x).
11. The seal structure of any one of foregoing claims, characterized in that said sheet-metal element (15, 15x) has a friction-improving treatment on the surface (20) thereof forming the sealing interface between said sheet-metal element and said seal element (13, 13x).
- 20 12. The seal structure of any one of foregoing claims, characterized in that said sheet-metal elements (14, 15, 15x) have a leakproofness-improving treatment on the surface thereof forming the sealing interface between said sheet-metal element and said seal element (13, 13x).
13. The seal structure of claim 1, characterized in that the spaces between said sheet-metal elements (14, 15, 15x) are brought to a vacuum.
- 30 14. The seal structure of claim 13, characterized in that the spaces between said sheet-metal elements (14, 15, 15x) are provided with channels extending up to the

spaces between the seal elements (13, 13x).